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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,939	10/23/2003	Scott J. Clifford	16143	6309
26530	7590	09/02/2005	EXAMINER	
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			TADESSE, YEWEBDAR T	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,939

Applicant(s)

CLIFFORD ET AL.

Examiner

Yewebdar T. Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 and 22-25 is/are allowed.
- 6) ☒ Claim(s) 13-17 and 26 is/are rejected.
- 7) ☒ Claim(s) 27-31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehinger et al. (US 5,772,125) in view of Cote et al (US 6,250,502) and Hoffman et al (US 6,308,868).

Ehinger et al. disclose a painting apparatus comprising an arm (5 or 52); a paint canister (6 or 56) mounted inside the arm; and a piston ram mounted in the arm and being connected to the paint canister (Figures 1 and 2; column 2, lines 49 – 62); but does not specifically disclose a canister quick disconnect releasably attaching the paint

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canister to the piston ram and a ram extending into the paint canister. However, Cote et al. disclose a canister quick disconnect (column 2, line 57 – column 3, line 41).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a canister quick disconnect in order to allow simplified cleaning or replacement of parts exposed to dispensing fluid for ease of service with minimum down time for service (column 3, lines 38 – 41). Hoffman et al discloses a piston ram assembly (40, 24) having a ram (rod 46) connected to the piston (40) extending into the paint canister (cylinder 42). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a ram extending in the canister to push the material out from the canister or cylinder.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehinger et al. Cote et al. and Hoffman et al (US 6,308,868) as applied in Claim 13 above, in view of Kamimura (US 5,063,828). Ehinger et al., Cote et al. and Hoffman et al. disclose all the limitations of Claim 13, but do not disclose a piston releasably attached to a ram body by a ram-locking key. However, Kamimura discloses a piston releasably attached to a ram body by a ram-locking key (Abstract; column 3, line 65 – column 4, line 17).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a piston ram which includes a piston releasably attached to a ram body by a ram locking key to avoid the piston from moving inadvertently.

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5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehinger et al., Cote et al. and Hoffman as applied in Claim 13 above and further in view of Pratt (US 6,261,042).

Ehinger et al., Cote et al. and Hoffman disclose all the limitations of Claim 13, but do not disclose said disconnect means to include convex locking means on said piston ram releasably engaged with concave locking means on said paint canister. However, Pratt discloses disconnect means to include convex locking means on said piston ram releasably engaged with concave locking means on said paint canister, or the equivalent (Claim 9). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include convex locking means on said piston ram releasably engaged with concave locking means on said paint canister so that the piston does not have a tendency to rotate once the assembly is installed (column 7, lines 21 – 28).

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehinger et al., Cote et al. and Hoffman as applied in Claim 13 above, in view of Minoura et al.

Ehinger et al., Cote et al. and Hoffman disclose all the limitations of Claim 13, but do not disclose said piston ram to include a ball screw and cooperating ball screw nut and including a drive motor connected to said ball screw or piston ram. However, Minoura et al. disclose said limitations (Figures 1 and 2; column 7, lines 46 – 60). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a piston ram that includes a ball screw and cooperating ball screw nut

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and including a drive motor connected to said ball screw or piston ram to increase efficiency of cleaning the paint canister (Abstract).

7. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conlin (US 6,346,150) in view of JP 10-15873. Conlin discloses a painting apparatus comprising: an arm (18) for a painting robot, the arm having a housing and an outer end (see Figs 1 and 2); and a wrist (30,32) having one end attached to the outer end of the arm (34), the wrist being formed of a non-conductive material (insulative material, see column 3, lines 17-18) and having an opposite end for mounting a paint applicator (spray nozzle 20). Conlin lacks teaching a robot arm housing formed of a non-conductive material. JP'873 discloses an insulating robot arm housing (see English translated Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to use non-conductive material for the housing to achieve an excellent insulating characteristic and improve safety of the apparatus.

***Allowable Subject Matter***

8. Claims 1-12 and 22-25 are allowed.

9. Claims 27-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. The following is a statement of reasons for the indication of allowable subject matter: as to claims 1-12 and 22-25, prior art of record does not disclose or suggest a painting apparatus comprising the combination an outer arm having a housing wherein a paint canister mounted inside the housing and a color changer mounted on an external surface of the housing and a paint transfer line continuously connecting the color changer to the an interior of the paint canister. With respect to claim 27-31, prior art of record does not disclose or suggest a painting apparatus comprising among others an arm having a housing and a wrist connected to the outer end of the arm and the wrist having an opposite end for mounting a paint applicator, wherein a paint canister is mounted inside the housing.

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 13-17 and 26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Plummer (US 4,884,752) discloses (see Fig 1) paint reservoirs (22,23) providing electrostatic isolation from the color changer (15).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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